

Incident Investigation – A Management Approach

UCIP Facilities Management Workshop

April 12, 2016

Utah Safety Council

Douglas R. Handy, CSP



1

Intro – Child's Play?

How many of you have had to conduct incident investigations of some type?

Some have said – Investigations are easy – child's play!

How many of you have children?



2

Incident

The term currently used to describe any unplanned event that either results in personal injury or damage to property, equipment, or the environment, or has the *potential* to result in such consequences.



3

Accident

A term no longer used by NSC, most safety professionals, and general industry because it implies that causal factors are beyond immediate control or understanding.



4

Why Investigate??

(Purpose)

Management and others have plenty of time?

Need something to do?

On my wish list/bucket list to investigate incidents?

We get paid more to investigate?

No??? – Then Why??



5

Importance of Incident Investigation

1. Moral & Human obligation (care for all).
2. Legal (OSHA) requirement.
3. Insurance (workers' compensation) requirement.
4. Consequences of not investigating incidents.
5. Understanding of how incident investigation leads to improved prevention and safety systems.
6. Costs of incidents.



6

Risk

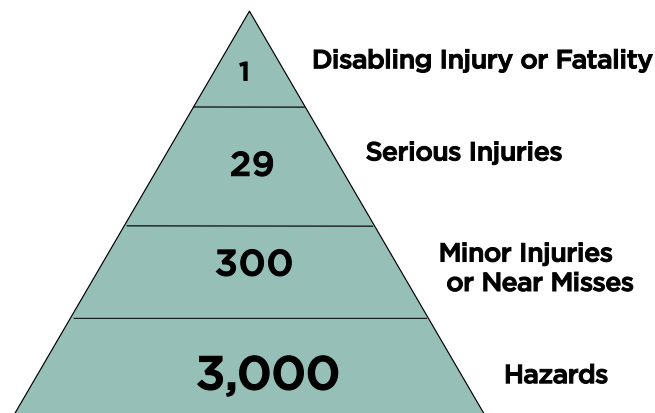
A measure of the probability and severity of adverse effects.

- Generally a combination of :
 - Task/Risk frequency.
 - Likelihood of occurrence.
 - Probable severity.



7

Heinrich's Incident Ratios



8

Connect numbers 1 up to 60 Exercise

Ready??



9

Systematic Approach To Incident Investigation

1. Respond immediately to the incident.
2. Investigate the incident.
3. Analyze the data and determine root causes.
4. Recommend corrective action.
5. Implement recommendations.
6. Follow up.



10

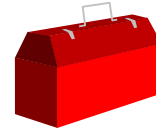
Respond Immediately to the Incident



Provide emergency response.

Secure the area & protect investigators.

Use an incident investigation kit.



Take notes and record times, etc....



11

The Five W's of Incident Investigation

Where?

When?

Who?

What?

Why?



12

Investigation Sources

Those involved.

The incident scene.

Witnesses.

Cameras/photos.

Job/Area/Task knowledge.

Relevant paperwork.



13

Inspecting The Incident Scene

Look at the overall scene. Does anything seem odd or out of place?

Collect transient or perishable evidence immediately.

Get samples of all possible material at the site.

Find all equipment pieces.

Get photos from all sights and angles.

Determine the extent of the damage to equipment, material, or building facilities.



14

Pictures for Incidents

Pictures must tell the story of how the incident occurred.

Pictures should be taken from all directions.

- Take pictures 200, 100, 50, and 25 feet away, and then any close up details – panoramic.
- Take note or pictures of any equipment, tools, walls, building supports or other items in the area – inside.
- Take pictures of any environmental elements, terrain, road surfaces, skid marks, holes, ravines, slopes, signs, bushes, obstructions or other items – outside.
- All of these pictures should tell the story of what happened before, during, and after the incident.



15



16



17



18



19

Interviewing Witnesses

Use a quiet and private place.

Emphasize you are not looking for someone to blame.

Give an overview of the interview.

Use open-ended questions.

Avoid bias.

Paraphrase what the witness tells you.

Ask for possible causes.

Thank them.



20

Reviewing Paperwork

First aid and or medical reports.
Incident investigation reports.
Supervisor's report.
Training logs and materials.
Preventive Maintenance reports/logs.
Previous Incident reports or employee concerns.



21

Root Cause Analysis or Causal Factor Analysis

Analysis that uses facts, experience, logic, and reasoning to determine which conditions or events—if eliminated —will reduce or eliminate the risks/hazards – thus preventing the recurrence of an incident.

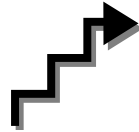


22

Analysis

Use of experience, logical reasoning, and intuitive creativity to bring all the pieces of information from an investigation together.

The results of a careful analysis can lead to identification of the root causes of an incident.



23

Determine Root Causes

Direct Cause

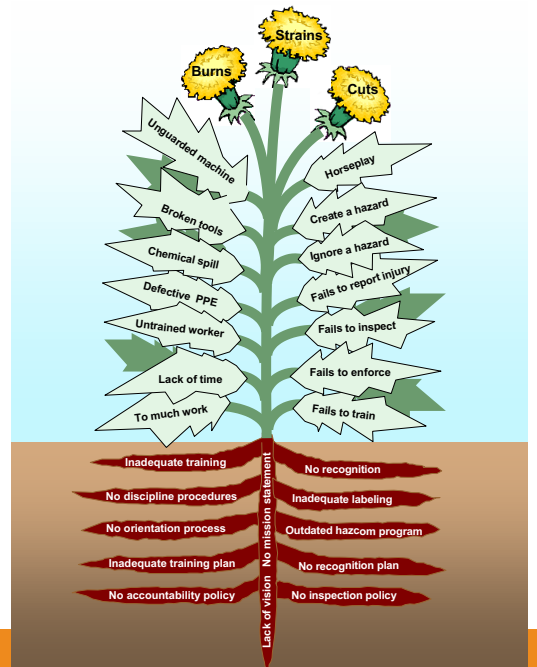
An event that produces injury or illness.

Surface Cause

Specific unsafe behaviors or hazardous conditions that result in an accident.

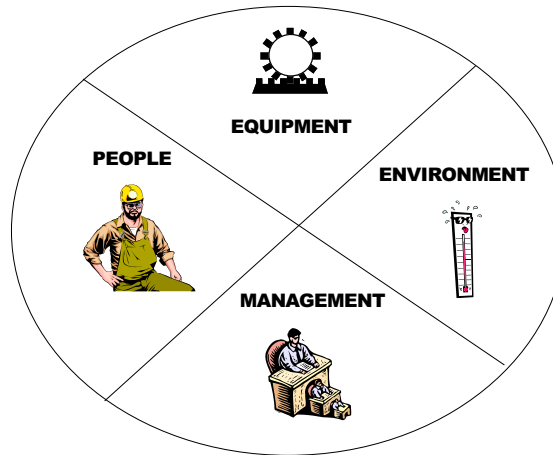
Root Cause

Common behaviors and conditions that ultimately result in an accident.



24

Sources for Root Causes



25

Implement Recommendations

Involve those at risk (those closest to the risk should have a say in the resolution).

Get buy in.

Understand the forces supporting and opposing you. (Let opposition have guided ownership)

Communicate the recommendations and the changes they will require.

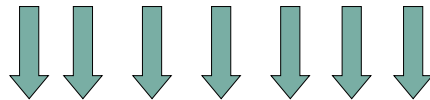
Standardize the changes.



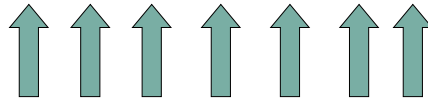
26

Supporting and Opposing Forces

Supporting Forces



PROPOSED CHANGE



Opposing Forces



27

Follow-up

Now that the hard work is done – generally the easiest part of the process is over looked.

THE FOLLOW-UP



28

Keys to Follow-up

How do people know what is important?

Do it soon.

Do it often.

Do it until it is satisfactorily completed.

Do it for involvement.

Do it for awareness.

Do it for “Your Family”!!

(Not Child’s Play!)



29

Thank You!



30